

WHAT IS CLAIMED IS:

1. A method to detect the ability of a compound to promote disaggregation of alpha synuclein comprising the steps, in order:

- 5           (a) adding a compound and Thioflavin T to an aggregated alpha synuclein solution, wherein the Thioflavin T will bind to the aggregated synuclein and produce a fluorescence at about 485nm;
- (b) incubating the solution of step (a) for sufficient time to allow the compound to change the aggregation state of the synuclein; and
- 10           (c) measuring a reduction of fluorescence at about 485 nm as an indication of a reduced aggregation state of the synuclein.

2. The method of claim 1 wherein the alpha synuclein is a purified, recombinant protein.

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3. The method of claim 2 wherein the aggregated alpha synuclein further comprises an enhancing peptide selected from the group consisting of SEQ.ID.NO.:3 and SEQ.ID.NO.:4.

20           4. The method of claim 1 wherein the alpha synuclein is a synthetic peptide comprising residues 61 – 90 of alpha synuclein (SEQ.ID.NO.:3).

5. A method to detect the ability of a compound to prevent aggregation of an alpha synuclein comprising the steps, in order:

- 25           (a) combining in an aqueous solution a compound, an alpha synuclein, and Thioflavin T;
- (b) incubating the solution of step (a) for sufficient time to provide an expected alpha synuclein aggregate, wherein the Thioflavin T will bind to the aggregated synuclein and produce a fluorescence at about 485nm;

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- (c) measuring the amount of fluorescence at about 485nm and comparing the effect of the compound on alpha synuclein aggregate compared to a similar fully aggregated control.

- 5 6. The method of claim 5 wherein the alpha synuclein is a purified, recombinant protein.
7. The method of claim 6 wherein the aggregated alpha synuclein further comprises an enhancing peptide selected from the group consisting of SEQ.ID.NO.:3 and
- 10 SEQ.ID.NO.:4.
8. The method of claim 5 wherein the alpha synuclein is a synthetic peptide comprising residues 61 – 90 of alpha synuclein (SEQ.ID.NO.:3).

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